

## REMARKS

This Amendment is submitted in reply to the Non-Final Office Action mailed on July 7, 2009. No fees are due herewith this Amendment. The Commissioner is hereby authorized to charge any fees that may be required or credit any overpayment to Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. 3712036-600 on the account statement.

Claims 1, 3-9, 12-17 and 19-20 are pending in this application. Claims 2, 10-11 and 18 were previously canceled without prejudice or disclaimer. In the Office Action, Claims 1, 3-9, 12-17 and 19-20 are rejected under 35 U.S.C. §103(a). In response, Claims 1, 9, 14 and 16 have been amended and Claims 4 and 19 have been canceled without prejudice or disclaimer. The amendments do not add new matter. In view of the amendments and/or for the reasons set forth below, Applicants respectfully submit that the rejections should be withdrawn.

In the Office Action, Claims 1, 3-9, 12-17 and 19-20 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publ. No. 2003/0072862 to Pruden et al. ("*Pruden*") in view of WO 02/39820 to Huang et al. ("*Huang*"). Applicants respectfully submit that the cited references are deficient with respect to the present claims.

Independent Claims 1, 9, 14 and 15 have been amended to recite, in part, wafers comprising a thermostable  $\alpha$ -amylase present in an amount of 10 to 1000 units per gram of a final dough batter. The amendment does not add new matter. The amendment is fully supported in the specification at, for example, page 10, lines 7-9. Embodiments of the present invention are directed to flour-based food products comprising wafers formed from wafer batters including  $\alpha$ -amylase that is used to manipulate certain textural attributes of the wafers. Using  $\alpha$ -amylase in wafers induces two main effects which will affect the wafer textures. First, the enzyme will induce a decrease in the starch viscosity at the baking step, leading to a modification in the expansion and the size of gas bubbles. Second, the enzyme will modify the macromolecular structure of starch leading to a modification of the physical properties in the solid cell walls of the dried wafer. The wafers of the present invention also have a final humidity that is not greater than 6%.

Applicants have surprisingly found that the enzymatic cleavage of starch operated by the  $\alpha$ -amylase increases the level of reducing sugars and so facilitates the browning reactions of the wafer together with a positive impact on the flavor of the final products. Specifically, Applicants

have found that the more  $\alpha$ -amylase that is contained in the batter, the faster the browning of the wafer is obtained. Applicants have also found that there exists a relationship between the level of  $\alpha$ -amylase incorporated into the batter and the hissing time during baking (*i.e.*, the time period corresponding to the audible noise produced by gas and steam release at the beginning of the baking phase). See, specification, page 9, line 18-page 10, line 2. In contrast, Applicants respectfully submit that *Pruden* and *Huang* fail to disclose each and every element of the present claims.

For example, *Pruden* and *Huang* fail to disclose or suggest wafers comprising a thermostable  $\alpha$ -amylase present in an amount of 10 to 1000 units per gram of a final dough batter as required, in part, by independent Claims 1, 9, 14 and 16. Indeed, the Patent Office fails to even point to any disclosure in either *Pruden* and *Huang* that discloses same. For example, *Pruden* is entirely directed toward a bakery product having an extended shelf life. The product may include amylase, but only in an amount of about 0.21 to about 6 parts by total weight dough. See, *Pruden*, Abstract; page 1, [0010]. This amount is less than the amount of  $\alpha$ -amylase claimed in the present claims. The Patent Office even admits that *Pruden* fails to disclose a wafer having an enzyme in units. See, Office Action, page 2, lines 13-14. At no place in the disclosure does *Pruden* even suggest wafers comprising a thermostable  $\alpha$ -amylase present in an amount of 10 to 1000 units per gram of a final dough batter as required, in part, by independent Claims 1, 9, 14 and 16.

As discussed in the specification, *Huang* is entirely directed to the use of high molecular weight starch hydrolysates or crystalline hydrate formers (such as maltose, isomaltose, trehalose, lactose and raffinose) in food products such as bakery product, where crispiness is desired in a high moisture environment. See, specification, page 4, line 26-page 5, line 2. See, also, *Huang*, Abstract. At no place in the disclosure does *Huang* even suggest wafers comprising a thermostable  $\alpha$ -amylase present in an amount of 10 to 1000 units per gram of a final dough batter as required, in part, by independent Claims 1, 9, 14 and 16.

The Patent Office asserts that, in *Huang*, "the concentration of enzyme can range from .00078-.4%" and that "*Pruden* discloses the amount of enzyme can be from .21-6 part." See, Office Action, page 3, lines 9-11. However, Applicants respectfully submit that neither of these portions cited by the Patent Office disclose or suggest wafers comprising a thermostable  $\alpha$ -amylase present in an amount of 10 to 1000 units per gram of a final dough batter as required, in

part, by independent Claims 1, 9, 14 and 16. Further, as discussed above, Applicants have surprisingly found that the more  $\alpha$ -amylase that is contained in the batter, the faster the browning of the wafer is obtained. Accordingly, Applicants respectfully submit that it would not have been obvious to the skilled artisan to include the presently claimed amounts of  $\alpha$ -amylase in the final dough batter as is suggested by the Patent Office.

For at least the reasons discussed above, Applicants respectfully submit that Claims 1, 3-9, 12-17 and 19-20 are novel, nonobvious and distinguishable from the cited references.

Accordingly, Applicants respectfully request that the rejection of Claims 1, 3-9, 12-17 and 19-20 under 35 U.S.C. §103(a) as being unpatentable over *Pruden* in view of *Huang* be reconsidered and withdrawn.

For the foregoing reasons, Applicants respectfully request reconsideration of the above-identified patent application and earnestly solicit an early allowance of same. In the event there remains any impediment to allowance of the claims that could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate such an interview with the undersigned.

Respectfully submitted,

K&L GATES LLP



BY \_\_\_\_\_

Robert M. Barrett  
Reg. No. 30,142  
Customer No.: 29157  
Phone No. 312-807-4204

Dated: October 6, 2009